

Five New Taxa of the Genus *Platycerus* (Coleoptera, Lucanidae) from China

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Abstract Four new species and a new subspecies of the lucanid genus *Platycerus* are described from China, under the names *P. nagahatai* sp. nov., *P. yeren* sp. nov., *P. tangi* sp. nov., *P. cyanidraconis* sp. nov., and *P. hongwonpyoi shennongjianus* subsp. nov.

In this paper, I am going to describe four new species and a new subspecies of the genus *Platycerus* from Shaanxi, Hubei and Sichuan Provinces of China. All the materials were collected through my field researches routinely made in recent years in collaboration with the Academia Sinica.

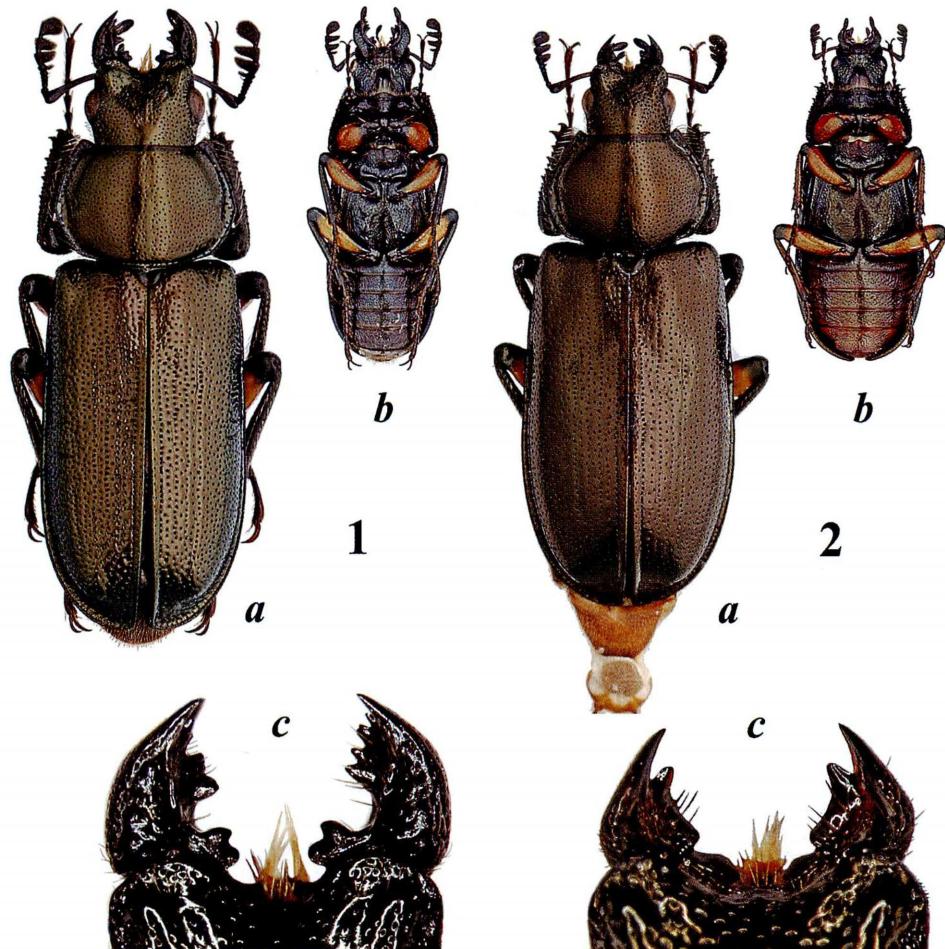
Before going into further details, I wish to express my sincere thanks to Messrs. Yoshiyuki NAGAHATA (Yamagata University), FAN Ting (International Academic Exchange Center of the Academia Sinica, Chengdu) and TANG Zhong-Ping (Maoxian Mountain Ecosystem Research Station, Chengdu Institute of Biology, CAS) from whom I received invaluable aid in the field work, and to Dr. Shun-Ichi UÉNO (National Museum of Nature and Science, Tokyo) for revising the manuscript of this paper.

1. *Platycerus nagahatai* IMURA, sp. nov.

(Figs. 1–3)

Male. Length (including mandibles): 8.7–10.8 (arithmetic mean 9.9) mm. Body above dark coppery brown, usually with a faint greenish tinge on head, pronotum and elytral margins; venter brownish black with a greenish metallic lustre; mandibles, palpi and antennae dark brown, femora brownish to reddish yellow except for blackish proximal and distal ends; tibiae dark brown to brownish black, tarsi and claws reddish brown. Colour variation is hardly recognizable as far as all the type specimens are concerned.

Head as in the other members of the genus; its dorsal surface rather coarsely scattered with small punctures which are not confluent with one another; mandibles (Fig. 1 c) small and short, widest at the base, rather acutely hooked inwards at about apical third, and acutely tapered towards apices which are sharply pointed; their dorsal



Figs. 1-2. *Platycerus nagahatai* sp. nov. from the Qinling Mts. of southern Shaanxi, Central China.
 — 1, ♂ (a, holotype); 2, ♀ (paratype); a, habitus in dorsal view; b, ditto in ventral view; c, mandibles in dorsal view.

Fig. 3 (on p. 111). Genital organ of *Platycerus nagahatai* sp. nov. — a, Male genital organ with fully inflated endophallus in ventral view; b, ditto in right subventral view; c, ditto in right lateral view; d, ditto in right subdorsal view; e, paramere in right lateral view; f, endophallus in posterior view; g, ditto in subdorsal view; h, female genital organ in ventral view.



wall weakly concave above in basal portions, and the outer margins rather weakly arcuate in basal halves, not remarkably angulate in median portions, and nearly straight in apical portions; retinacula not so large and irregularly multi-dentate, with 2–5 small inner teeth on each side.

Pronotum transverse, 1.41–1.57 (mean 1.50) times as wide as long, widest obviously behind the middle, and more acutely narrowed towards base than towards apex; apical margin nearly straight or slightly bisinuate, with the front angles triangularly protruding anteriad with blunt tips; lateral sides either subangulate or obtusely rounded at the widest part; hind angles obtusely rounded; disc moderately convex above and rather uniformly scattered with small punctures.

Elytra relatively short and robust, 1.70–1.76 (mean 1.72) times as long as wide, subparallel-sided, and rather acutely narrowed towards apices; shoulders distinct, with a very small humeral tooth on each side; surface rather uniformly scattered with small punctures which are often arranged in longitudinal rows; intervals weakly but obviously rugoso-striate near the sutural part in median portion.

Male genital organ as shown in Figs. 3 a–g; viewed ventrally, lateral side of each paramere rather remarkably inflated in basal portion, its inner-apical angle effaced though partly subangulate, inner margin weakly emarginate near the base, inner-basal corner not strongly protruding inwards, and apical margin of basal piece subtrapezoidally protruded apicad; viewed dorsally, inner margin of each paramere widely and roundly emarginate throughout, with the inner-basal corner obliquely protrudent, and basal piece triangularly protruding inwards; distal portion of aedeagus bifurcated into a pair of sclerotized plates; each plate suboval in shape, with a well sclerotized oblique keel near the middle; both the keels are subequal in size and shape, weakly protruded ventrally with the margins obtusely rounded throughout; endophallus not so large even in fully inflated condition; a single, large membranous protrusion is recognized at the middle of basal portion between distal pair of aedeagal plates; median portion rather remarkably constricted before flagellum, distal portion with two pairs of accessory inflations on both sides; flagellum rather completely attached to membranous wall of endophallus, indicated by longitudinally set linear sclerite which is widest at the base and gradually tapered towards the distal end.

Femal e. Length (including mandibles): 9.6–10.7 (arithmetic mean 10.2) mm. Coloration of dorsal surface similar to that of male, though usually more shiny and greenish tinge is hardly recognizable; venter more brownish, above all in abdominal sternites.

Head much smaller than in male; its dorsal surface rather irregularly scattered with small punctures which are not confluent with one another; mandibles (Fig. 2 c) small and short, with the basic structure almost as in the other members of the genus.

Pronotum transverse, 1.41–1.45 (mean 1.42) times as wide as long, widest behind the middle, much more strongly narrowed towards apex than towards base, with the widest parts either roundly arcuate or subangulate; front angles triangularly protruding anteriad as in male, hind angles almost rounded; disc moderately convex above, with the

surface scattered with small punctures as in male.

Elytra robuster than in male, 1.57–1.68 (mean 1.63) times as long as wide, widest behind the middle, with the lateral sides nearly straight before the widest part and roundly arcuate near apices; shoulders distinct and no humeral tooth is recognizable as far as all the four type specimens are concerned; surface rather uniformly scattered with small punctures which are usually arranged in longitudinal rows; intervals faintly rugoso-striate near the sutural part in median portion.

Female genital organ as shown in Fig. 3 h; gonocoxite robust, subquadrate in shape.

Type series. Holotype: ♂, pass between Banfangzi [板房子] and Longzaoping [龙草坪], 2,200–2,220 m in altitude, on the borders between Zhouzhi Xian [周至县] and Foping Xian [佛坪县], on the main ridge of the Qinling Mountains [秦岭山脉], in southern Shaanxi, Central China, larvae collected in the field on 3–XI–2005 by Y. IMURA & Y. NAGAHATA and emerged in the laboratory in VIII~IX–2006, to be deposited in the Department of Zoology, National Museum of Nature and Science, Tokyo. Paratypes: 5♂♂, 4♀♀, same data as for the holotype, in coll. Y. IMURA.

Notes. This new species is similar in appearance to *P. bashanicus* (IMURA & TANIKADO, 1998, p. 93; IMURA, 2006 a, p. 132, 2006 b, p. 27) of the Daba Shan Mountains in northern Chongqing, but distinguished from that species in the following points: 1) size a little smaller; 2) dorsal colour constantly dark coppery brown, while it is much more greenish (in male), golden to greenish coppery (in female), or dark bluish (in both sexes) in *P. bashanicus*; 3) pronotum more acutely narrowed towards the apex, with the front angles more prominently protruding anteriad, above all in male; 4) pronotal disc more strongly convex above in both sexes; 4) endophallus of male genital organ widely different in shape, with a large membranous protrusion at the middle of basal portion between distal pair of aedeagal plates, while it is vestigial in *P. bashanicus*, and accessory inflations in median to apical portion much less strongly developed.

All the specimens of the new species were collected as larvae from the white-rotten part of dead *Prunus* sp. standing in the deciduous broadleaved forest, and emerged in the laboratory nine to ten months later.

Etymology. This new species is named after Mr. Yoshiyuki NAGAHATA of Yamagata University, an eminent naturalist and nature photographer, who kindly helped my field work on the Qinling Mountains.

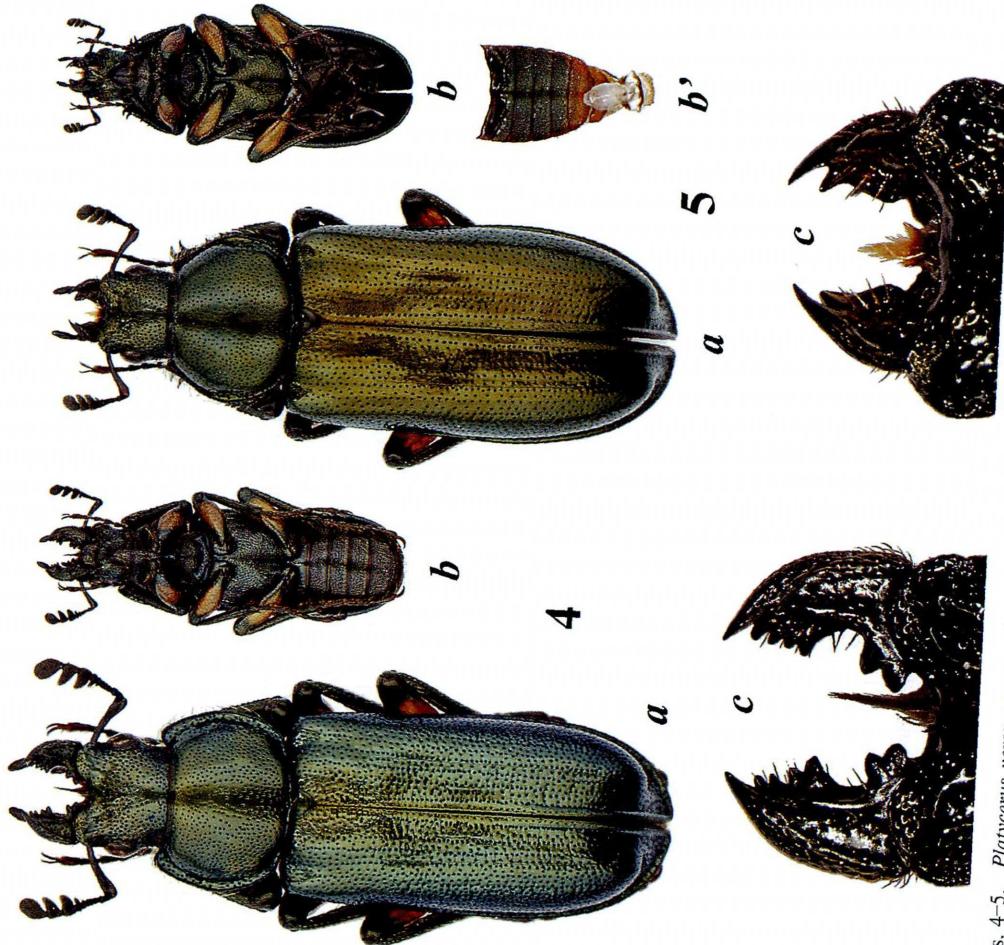
2. *Platycerus yeren* IMURA, sp. nov.

(Figs. 4–6)

Platycerus businskyi: IMURA, 2002, Elytra, Tokyo, 30, p. 38.

Platycerus bashanicus: IMURA, 2006 a, Elytra, Tokyo, 34, p. 132. — IMURA, 2006 b, Gekkan-Mushi, Tokyo, (426), p. 27.

Male. Length (including mandibles): 10.5–11.6 (arithmetic mean 11.0) mm. Body above bluish green or greenish blue often with rather remarkable bronzy or golden



Figs. 4-5. *Platycerus yeren* sp. nov. from the Dashennongjia Mts. of western Hubei, Central China.
 — 4, ♂ (holotype); 5, ♀ (paratype); a, habitus in dorsal view; b, ditto in ventral view; b', separated abdomen in ventral view; c, mandibles in ventral view.

Fig. 6 (on p. 115). Genital organ of *Platycerus yeren* sp. nov. — a, male genital organ with fully inflated endophallus in ventral view; b, ditto in right subventral view; c, ditto in right sublateral view; d, ditto in right subdorsal view; e, paramere in right lateral view; f, basal portion of endophallus in ventral view; g, median portion of endophallus in subdorsal view; h, vagina in left lateral view; i, female genital organ with fully everted left gonocoxite in ventral view; j, ditto in posterior view; k, left gonocoxite in ventral view.



tinge; mandibles, tibiae, and knees greenish black; palpi, antennae, tarsi, claws and basalmost part of each femur brownish black to brown; femora excepting proximal and distal ends yellowish brown; venter black, often with a remarkable blue-greenish metallic lustre.

Head as in the other members of the genus; its dorsal surface rather coarsely scattered with small punctures which are not confluent with one another; mandibles (Fig. 4 c) small and short, widest at the base, and rather acutely tapered towards apices which are sharply pointed; their dorsal wall more or less concave above in basal two-thirds, more strongly so in larger individuals, with the outer margins nearly straight or faintly arcuate in basal two-thirds, subangulate at about apical third, and nearly straight in apical portions; retinacula moderately sized and irregularly multi-dentate, with 3–5 small inner teeth on each side.

Pronotum transverse, 1.42–1.52 (arithmetic mean 1.46) times as wide as long, widest at or behind the middle, either roundly arcuate or subangulate at the widest part, and more gradually narrowed towards apex than towards base; front angles subtriangularly protruding anteriad with blunt tips; hind angles obtusely rounded though sometimes faintly angulate; disc not so strongly convex above, and almost uniformly punctate as on head.

Elytra oblong, 1.71–1.86 (arithmetic mean 1.77) times as long as wide, subparallel-sided and rather acutely and roundly narrowed towards the apices; shoulders distinct, sometimes with a very small humeral tooth on each side; surface rather uniformly scattered with small punctures which are usually arranged in longitudinal rows; intervals rather narrowly rugoso-striate near the sutural part in median portion.

Male genital organ as shown in Figs. 6 a–h; viewed ventrally, lateral side of each paramere rather remarkably inflated in basal portion, its inner-apical angle effaced, inner margin weakly emarginate near the base, inner-basal corner not strongly protrudent inwards, and apical margin of basal piece subtrapezoidally protruded apicad; viewed dorsally, inner margin of each paramere widely and roundly emarginate throughout, with the inner-basal angle obliquely protrudent, and basal piece triangularly protrudent inwards; distal portion of aedeagus bifurcated into a pair of sclerotized plates; each plate suboval in shape, with a sclerotized keel obliquely set near the middle; the right keel weakly protruded ventrad, with the ventral margin weakly arcuate throughout and rectangularly angulate at the distal end; the left one subequal in size and shape to the right; endophallus well developed; its basal portion with a single, moderately sized membranous protrusion on extended side between distal pair of aedeagal plates; median portion constricted before flagellum, with four pairs of prominent inflations on both sides; flagellum rather short, indicated by longitudinally set linear sclerite completely attached to membranous wall of endophallus; apical portion with a pair of hemispherical inflations on both sides and a pair of short finger-like protrusions at the apex.

F e m a l e. Length (including mandibles): 9.7–11.1 (arithmetic mean 10.4) mm. Body above dark green and shiny, often with a golden tinge on elytra; coloration of appendages and venter almost as in male, though lateral and apical portions of

abdominal sternites are usually brownish.

Head much smaller than in male; its dorsal surface rather uniformly scattered with small punctures which are not confluent with one another; mandibles (Fig. 5 c) small and short, with the basic structure almost as in the other members of the same genus.

Pronotum transverse, 1.29–1.50 (arithmetic mean 1.39) times as wide as long, widest a little behind the middle, more strongly narrowed towards apex than towards base, with the widest parts usually subangulate; front angles much shorter, smaller, and less strongly protruding anteriad than in male; hind angles as in male; disc a little less strongly convex above than in male.

Elytra robuster than in male, 1.59–1.74 (arithmetic mean 1.67) times as long as wide, widest obviously behind the middle, with the lateral sides nearly straight and weakly divergent posteriad before the widest part, and rather acutely and roundly narrowed towards apices; shoulders distinct, humeral tooth not recognizable; surface rather uniformly scattered with small punctures which are often arranged in longitudinal rows; intervals very weakly or hardly rugoso-striate near the sutural part in median portion.

Female genital organ as shown in Figs. 6 i–k; gonocoxite subquadrate and robust, widest at the base, with the inner margin obviously emarginate.

Type series. Holotype: ♂, Jinhouling [金猴岭], 2,350–2,460 m in altitude, on the northeastern slope of the peak Shennongding [神农顶] on the Dashennongjia [大神农架] Massif, in western Hubei, Central China, 3~5-IV-2007, Y. IMURA leg., to be deposited in the Department of Zoology, National Museum of Nature and Science, Tokyo. Paratypes: 13♂♂, 20♀♀, same data as for the holotype, Y. IMURA & Y. NAGAHATA leg.

Notes. The present new species was first recorded by myself as *Platycerus businskyi* (IMURA, 2002, p. 38), and later assigned also by myself to *P. bashanicus* (IMURA, 2006 a, p. 132; 2006 b, p. 27). As described in the above lines, however, the species can be worth regarded as an independent one judging from differently featured endophallus of the male genital organ. In many respects, the species seems to belong to the same group as that composed of such allied forms as *P. nagahatai* sp. nov, *P. bashanicus* and *P. consimilis* (TANIKADO & TABANA, 1998, p. 17).

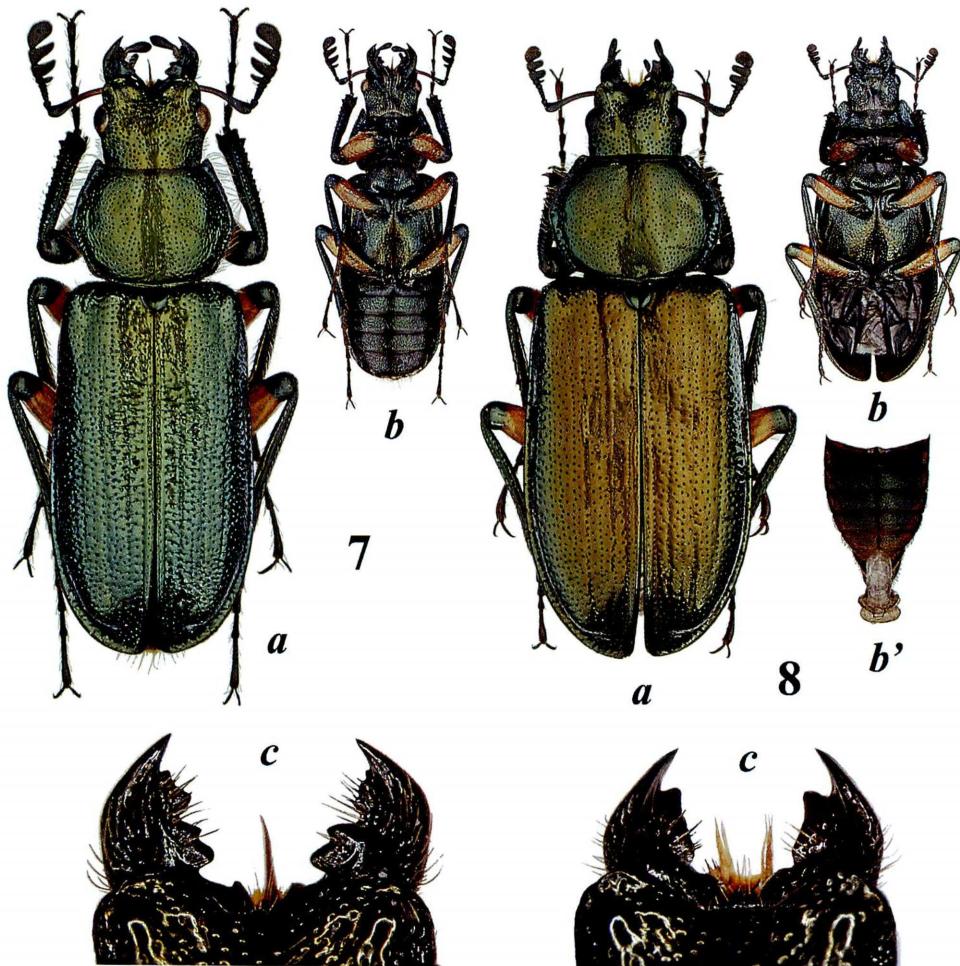
This new species inhabits, sympatrically with *P. turnai* (IMURA, 2001, p. 28), a primary forest composed of deciduous broadleaved trees and certain kind of coniferous trees now rather narrowly extant on the northeastern slope of the peak Shennongding. All the specimens collected in the field were hibernating in white- or gray-rotten part of withered wood either still standing or already fallen down.

The new specific name, *Yeren* [野人], means savage or wild man in Chinese, since its type locality, Shennongjia, is an area famous in having a legend of yeren.

3. *Platycerus tangi* IMURA, sp. nov.

(Figs. 7–9)

Male. Length (including mandibles): 10.8 mm. Body above dark green with a



Figs. 7-8. *Platycerus tangi* sp. nov. from east of Maoxian on Mt. Jiuding Shan of north-central Sichuan, Southwest China. — 7, ♂ (holotype); 8, ♀ (paratype); a, habitus in dorsal view; b, ditto in ventral view; b', separated abdomen in ventral view; c, mandibles in dorsal view.

Fig. 9 (on p. 119). Genital organ of *Platycerus tangi* sp. nov. — a, Male genital organ with fully inflated endophallus in ventral view; b, ditto in right subventral view; c, ditto in right lateral view; d, ditto in right subdorsal view; e, paramere in right lateral view; f, basal portion of endophallus in subposterior view; g, median portion of endophallus in subdorsal view; h, female genital organ with fully everted vagina in left lateral view; i, ditto in posterior view; j, left gonocoxite in ventral view.



remarkable golden tinge on head, pronotum and basal part of elytra; mandibles, basalmost parts of femora, knees and tibiae greenish black; palpi, antennae, tarsi and claws brownish black; femora except for both proximal and distal ends yellow-reddish brown; venter black, with a remarkable blue-greenish metallic lustre.

Head as in the other members of the genus; its dorsal surface rather irregularly scattered with small punctures which are not confluent with one another but rather coarsely set near and between eyes; mandibles (Fig. 7 c) very small and short, rather acutely hooked at about the middle, with the dorsal wall not concave above but rather evidently carinate along the inner margin to form a longitudinal ridge; the outer margins of mandibles nearly straight in basal halves, obtusely angulate at about the middle, then almost straight again in apical halves; apical portion of mandibles rather acutely tapering towards the apices which are sharply pointed; retinacula very small and short, with the inner margin bi- or tridentate on each side.

Pronotum transverse, 1.41 times as wide as long, widest a little behind the middle, subangulate at the widest part, with front angles subtriangularly protruding anteriad and rather sharply pointed at the tips, hind angles rather remarkably subangulate; disc not so strongly convex above, and rather uniformly scattered with small punctures.

Elytra oblong, 1.79 times as long as wide, widest obviously behind the middle, subparallel-sided before the widest parts and roundly arcuate before apices; shoulders distinct, with a very small humeral tooth on each side; surface scattered with small punctures which are often arranged in longitudinal rows; intervals rather remarkably rugoso-striate near the sutural part in median portion.

Male genital organ as shown in Figs. 9 a–g; viewed ventrally, lateral side of each paramere moderately inflated in basal portion, its inner-apical angle effaced, inner margin nearly straight and rather remarkably emarginate near the base, inner-basal angle conspicuously protrudent inwards; apical margin of basal piece subtrapezoidally protruded apicad; viewed dorsally, inner margin of each paramere widely and roundly emarginate throughout, with the inner-basal angle obliquely protruded, basal piece triangularly protrudent inwards; distal portion of aedeagus indicated by sclerotized plate which is subquadrate in shape with the apical margin remarkably re-entrant at the middle; a pair of sclerotized oblique keels are recognized on both sides, each subtriangular in shape with the tips obtusely rounded; endophallus moderately developed and somewhat tube-like; its basal portion moderately inflated bilaterad; median portion with two pairs of horn-like protrusions on extended side; flagellum short, robust, weakly pigmented and completely attached to membranous wall of endophallus; apical portion acutely inflexed towards the base of paramere, with a pair of short protrusions at the apex.

Femal e. Length (including mandibles): 10.2–11.5 (arithmetic mean 11.0) mm. Body above a little more strongly polished than in male, brassy with a greenish tinge on head, pronotum and along lateral margins of elytra, or wholly greenish in some individuals; coloration of appendages and venter almost as in male, though lateral and apical portions of abdominal sternites are reddish brown.

Head much smaller than in male; its dorsal surface irregularly scattered with small punctures, rather coarsely so near eyes; mandibles (Fig. 8 c) small and short, with the basic structure as in the other members of the same genus.

Pronotum transverse, 1.33–1.44 (arithmetic mean 1.38) times as wide as long, widest at or a little behind the middle, more acutely narrowed towards apex than towards base, with the widest part subangulate; front angles much less strongly protruding anteriad than in male; hind angles obviously subangulate; disc not so strongly convex above, scattered with a little smaller and more sparsely set punctures than on head.

Elytra much wider than in male, 1.55–1.64 (arithmetic mean 1.61) times as long as wide, widest obviously behind the middle, with the lateral sides nearly straight before the widest part and roundly arcuate near apices; shoulders distinct and subangulate, usually with a small humeral tooth on each side; surface rather uniformly scattered with small punctures which are often arranged in longitudinal rows; intervals faintly rugoso-striate near the sutural part in median portion.

Female genital organ as shown in Figs. 9 h–j; vagina in fully everted condition rather short, robust, and bifurcate at the apex in lateral view; gonocoxite oblong, widest at the base and gradually narrowed and slightly bent inwards towards the apex.

Type series. Holotype: ♂, ca. 6.5 km east of Maoxian [茂县] Town, 2,000–2,200 m in altitude, on the northeastern slope of Mt. Jiuding Shan [九顶山], on the Chaping Shan [茶坪山] Mts., in Mao Xian [茂县] of north-central Sichuan, Southwest China, 26–X–2007, Y. IMURA leg., to be deposited in the Department of Zoology, National Museum of Nature and Science, Tokyo. Paratypes: 6♀, same data as for the holotype, in coll. Y. IMURA.

Notes. This new species is considered to be most closely allied to *P. tieguanzi* described recently from Mt. Emei Shan (IMURA, 2007, p. 319), but readily discriminated from that species in the following points: 1) size much smaller; 2) coloration in male much lighter; 3) mandibles in male different in shape, with the outer margin more remarkably subangulate near the middle and retinacula much smaller; 4) pronotum in male different in shape, with the lateral sides more acutely and straightly narrowed towards front angles which are much more sharply pointed at the tips, disc more strongly convex above; 5) elytra in male robuster and more widely rugoso-striate in median portion; 6) paramere much wider and robuster, with the dorsal-apical corner more sharply pointed in lateral view.

The new species inhabits the deciduous broadleaved forest mainly composed of *Carpinus*, *Prunus*, *Acer*, etc., remaining along a narrow, steep stream running from east to west near the middle altitude of northeastern side of Mt. Jiuding Shan (2,000–2,200 m above sea level). All the specimens were hibernating in gray-rotten part of withered woods either still standing or already fallen down, or softly rotten branches on the forest floor.

Etymology. The new species is named after Mr. TANG Zhong-Ping [唐 中平] of the Maoxian Mountain Ecosystem Research Station, Chengdu Institute of Biology, CAS, from whom I have received invaluable aid in researching the platycerine fauna of

Mt. Jiuding Shan.

4. *Platycerus cyanidraconis* IMURA, sp. nov.

(Figs. 10–12)

Male. Length (including mandibles): 9.5 mm. Body above dull green with a faint coppery tinge and not strongly polished; mandibles, basalmost parts of femora, knees and tibiae brownish black; palpi, antennae, tarsi and claws dark brownish; femora except for proximal and distal ends yellow-reddish brown; venter black, with a weak blue-greenish metallic lustre.

Head as in the other members of the genus; its dorsal surface rather irregularly scattered with small punctures which are not confluent with one another; mandibles (Fig. 10 c) small and short, rather acutely hooked inwards at about the middle, with the dorsal wall not concave but somewhat convex above in basal portions; outer margin of each mandible nearly straight or faintly arcuate in basal halves, obtusely angulate at about the middle, then almost straight again in apical halves; apical portion of mandibles rather acutely tapering towards the apices which are sharply pointed; retinacula moderately sized, with 2–4 small inner teeth on each side.

Pronotum transverse, 1.33 times as wide as long, widest a little behind the middle, subangulate at the widest part, with the front angles rather weakly protruding anteriad with the tips obtusely rounded, hind angles obtusely rounded; disc not so strongly convex above, and rather uniformly scattered with small punctures.

Elytra oblong, 1.76 times as long as wide, widest obviously behind the middle, with the lateral sides subparallel-sided in apical halves and roundly arcuate near apices; shoulders distinct, humeral tooth vestigial; surface scattered with small punctures which are often arranged in longitudinal rows; intervals rather prominently rugoso-striate near the sutural part in median portion.

Male genital organ as shown in Figs. 12 a–g; viewed ventrally, lateral side of each paramere rather strongly inflated in basal portion, its inner-apical angle effaced, inner margin nearly straight and slightly emarginate near the base, inner-basal angle protrudent inwards; apical margin of basal piece roundly protruded apicad; viewed dorsally, inner margin of each paramere widely and roundly emarginate throughout, with the inner-basal angle obliquely protrudent, basal piece triangularly protruded inwards; distal portion of aedeagus indicated by subquadrate sclerotized plates with the apical margin remarkably re-entrant at the middle; a pair of subtriangularly shaped keels are recognized on both sides, the right keel a little more strongly protuberant than the left; endophallus robust and not so large; its basal portion rather strongly inflated and not constricted before flagellum; median portion with a pair of finger-like narrow projections and much shorter hemispherical inflations on dorsal side; flagellum not so long, widest at the base, weakly pigmented and completely attached to membranous wall of endophallus; apical portion acutely inflexed, with a pair of short and robust protrusions at the apex.

F e m a l e. Length (including mandibles): 9.4 mm. Body above brassy with a weak greenish tinge on head, pronotum and lateral margins of elytra; coloration of appendages and venter almost as in male, though meso- and metatibiae are yellow-reddish brown and the abdominal sternites are much more strongly brownish.

Head a little smaller than in male; its dorsal surface irregularly and rather sparsely scattered with small punctures which are not confluent with one another; mandibles (Fig. 11 c) small and short, with the basic structure almost as in the other members of the same genus.

Pronotum transverse, 1.41 times as wide as long, widest a little behind the middle, much more acutely narrowed towards apex than towards base, with the lateral sides remarkably angulate at the widest part and nearly straight before and behind there; front angles only slightly produced anteriad; hind angles subangulate; disc not so strongly convex above, rather sparsely scattered with small punctures.

Elytra much wider than in male, 1.55 times as long as wide, widest near apical third, with the lateral sides nearly straight before the widest part and roundly arcuate near apices; shoulders distinct, with a very small humeral tooth on each side; surface rather uniformly scattered with small punctures which are often arranged in longitudinal rows; intervals more weakly and narrowly rugoso-striate than in male near the sutural part in median portion.

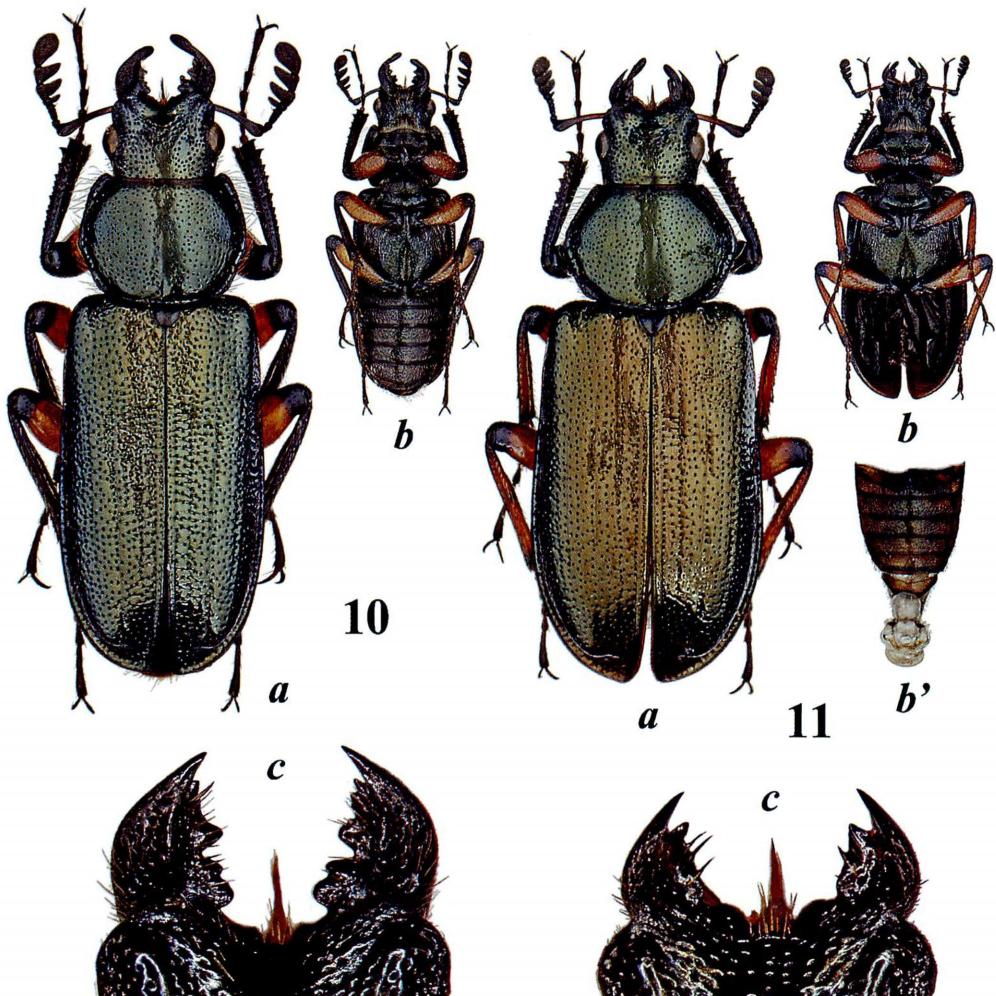
Female genital organ as shown in Figs. 12 h–j; vagina very short and robust in fully everted condition; gonocoxite oblong, subparallel-sided and hardly bent inwards towards the apex.

Type series. Holotype: ♂, Qinlongping [青龙坪], 2,700–2,800 m in altitude, ca. 5.2 km south of Nanxin [南新], on the western slope of Mt. Jiuding Shan [九顶山], on the Chaping Shan [茶坪山] Mts., in Mao Xian [茂县] of north-central Sichuan, Southwest China, 27–X–2007, Y. IMURA leg., to be deposited in the Department of Zoology, National Museum of Nature and Science, Tokyo. Paratype: 1♀, same data as for the holotype, in coll. Y. IMURA.

Notes. This new species is allied to *P. tangi* nov. described from the same mountain range, but the former is readily discriminated from the latter as follows: 1) mandibles a little larger, with more strongly developed retinacula in male; 2) pronotum different in shape in both sexes; 3) elytra more widely and remarkably rugoso-striate in both sexes; 4) genital organ different in shape, above all in characteristically featured endophallus. It is most probable that the new species belongs to the same group as that composed of such species as *P. tangi* sp. nov., *P. tieguanzi* and *P. hiurai* (TANIKADO & TABANA, 1997, p. 7), all distributed in Sichuan Province.

The two type specimens were obtained from the broadleaved forest surrounding an alpine meadow called Qinlongping on the western side of Mt. Jiuding Shan (2,700–2,800 m above sea level). They were hibernating in gray-rotten part of a dead branch protruded from living trunk of *Carpinus* sp. at about 1 m above the ground.

Etymology. The new specific name comes from the type locality of the new species, Qinlongping [青龙坪], which means “the Plateau of Blue Dragon” in Chinese.



Figs. 10-11. *Platycerus cyanidraconis* sp. nov., from Qinlongping on Mt. Jiuding Shan of north-central Sichuan, Southwest China. — 10, ♂ (holotype); 11, ♀ (paratype); a, habitus in dorsal view; b, ditto in ventral view; b', separated abdomen in ventral view; c, mandibles in dorsal view.

Fig. 12 (on p. 125). Genital organ of *Platycerus cyanidraconis* sp. nov. — a, Male genital organ with fully inflated endophallus in ventral view; b, ditto in right subventral view; c, ditto in right sublateral view; d, ditto in right subdorsal view; e, paramere in right lateral view; f, basal portion of endophallus in subposterior view; g, median portion of endophallus in subdorsal view; h, female genital organ with fully everted vagina in left lateral view; i, ditto in posterior view; j, left gonocoxite in ventral view.



5. *Platycerus hongwonpyoi shennongjianus* IMURA, subsp. nov.
(Fig. 13)

Length (including mandibles): ♂, 8.6–12.0 (arithmetic mean 11.0) mm; ♀, 10.1–11.1 (arithmetic mean 10.5) mm.

Most closely allied to subsp. *dabashanensis* (OKUDA, 1997, p. 12) of the Daba Shan Mountains, but distinguishable from that race in the following points: 1) body above usually less strongly golden yellowish but a little more remarkably bluish in male; 2) elytra more gradually narrowed towards apices in both sexes; 3) elytral punctures a little smaller and a little more sparsely set in both sexes; 4) elytral wrinkles in male more narrowly and shallowly carved.

From the nominotypical subspecies (IMURA & CHOE, 1989, p. 20) and subsp. *merkli* (ibid., p. 21), the new subspecies is readily discriminated by differently shaped male mandibles, more sparsely set punctures on the head, more strongly convex pronotum, and more widely and minutely carved elytral wrinkles.

From subsp. *tianmushanus* (IMURA et WAN, 2006, p. 294), the new race is

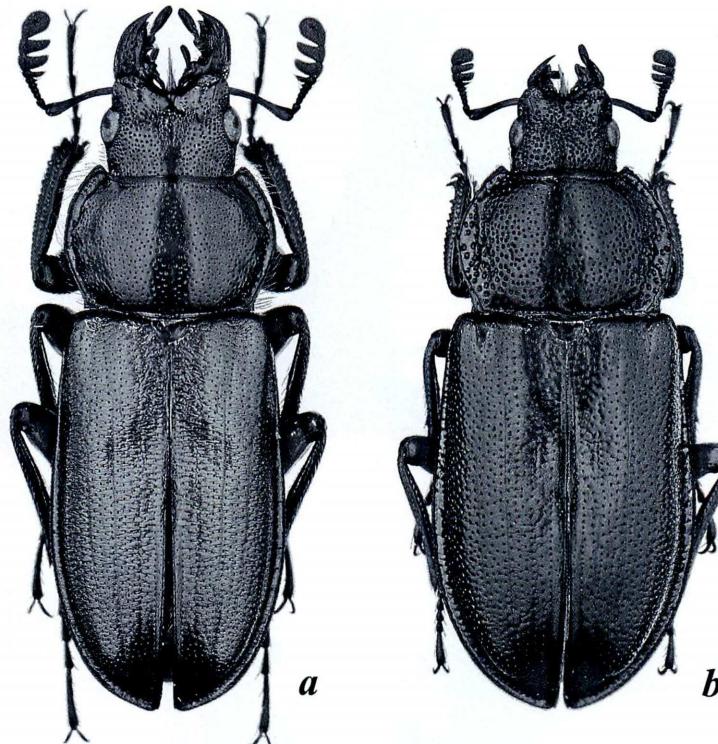


Fig. 13. *Platycerus hongwonpyoi shennongjianus* subsp. nov., from Shennongjia of western Hubei, Central China. — a, ♂ (holotype); b, ♀ (paratype).

discriminated as follows: 1) pronotum different in shape, with the front angles less widely protruding anteriad; 2) elytra more gradually narrowed towards apices; 3) elytral wrinkles much more widely and minutely recognizable.

From subsp. *qinlingensis* (IMURA, 1993, p. 12) and subsp. *funiuensis* (IMURA, 2005, p. 498), the new subspecies is readily distinguishable by the following characteristics: 1) male mandibles different in shape, much less strongly arcuate inwards; 2) punctures on head and pronotal disc more sparsely set; 3) elytra more gradually narrowed towards apices; 4) elytral disc much more smoothly sculptured.

The new subspecies differs from subsp. *mongolicus* (IMURA et BARTOLOZZI, 2006, p. 136) in the following points: 1) dorsal colour in male much less strongly bluish; 2) male mandibles a little different in shape; 3) dorsal surface of head more sparsely punctate; 4) pronotum less transverse, with the disc more narrowly depressed along the lateral margins; 5) elytral disc much more smoothly sculptured.

Type series. Holotype: ♂, between Muyu [木魚] and Yezikou [鴨子口], 1,800–1,850 m in altitude, in Shennongjia [神农架] of western Hubei, Central China, 4–IV–2007, Y. IMURA leg., to be deposited in the Department of Zoology, National Museum of Nature and Science, Tokyo. Paratypes: 4♂♂, 4♀♀, same data as for the holotype; 16♂♂, 2♀♀, same locality, larvae collected in the field on 4 & 6–IV–2007 and emerged in the laboratory in VIII–IX–2007, in coll. Y. IMURA.

要 約

中国産ルリクワガタ属の5新分類単位。——中国陕西省、湖北省、四川省の各地から、以下に述べるようなルリクワガタ属の4新種、1新亜種を記載した。

- 1) ナガハタルリクワガタ *Platycerus nagahatai*: バサンルリクワガタに近いが、背面の色彩は雌雄ともに安定した銅褐色で、♂交尾器内袋の形態が大きく異なる。陕西省南部の秦嶺山脈高所に生息し、新種名は永幡嘉之氏にちなむ。
- 2) ヤジンルリクワガタ *P. yeren*: 前種と同じくバサンルリクワガタに近いが、♂交尾器内袋の形態には顕著な差がみられる。湖北省西部の神农架に産し、新種名は同地が野人伝説で有名なことにちなむ。ミトコンドリアDNAを分析して得られた分子系統樹(未発表)や♂交尾器形態からみて、前種と本種、それにバサンルリクワガタ、ミヤマルリクワガタの4種は、たがいに類縁が近いものと思われる。
- 3) タンルリクワガタ *P. tangi*: 比較的特異な外観をもつが、♂交尾器内袋の形態は、既知種のなかではテツカンシルリクワガタのそれにもっとも近い。四川省中北部の茶坪山脈から発見された新種で、種名は調査に随行していただいた中国科学院成都生物研究所茂县山地生态系統定位研究站の唐中平氏にちなむ。
- 4) セイリュウルリクワガタ *P. cyanidraconis*: 前種に近いが、外部形態、交尾器形態とも大きく異なるため、識別は容易である。茶坪山脈の、より高所から記載された新種で、種名は基準産地である青龍坪にちなむ。分子系統と♂交尾器内袋の形態からみて、前種と本種、ならびに四川省中～南部のテツカンシルリクワガタ、ウラクロルリクワガタの4種は、たがいに類縁が

近いものと思われる。

5) チョウセンコルリクワガタ神衣架亜種 *P. hongwonpyoi shennongjianus*: 大巴山から記載された *susp. dabashanensis* にもっとも近いが、♂では体表の色調がやや異なり、上翅は先端に向けてより緩やかに狭まるため、先端が尖ってみえ、両性において上翅の点刻がやや小さく疎で、♂の上翅中央にある横皺がより浅く狭い。

References

IMURA, Y., 1993. On the genus *Platycerus* (Coleoptera, Lucanidae) of China and Korea—Discovery of a new subspecies of *Platycerus hongwonpyoi* from the Qinling Mountains in Shaanxi Province, Central China—. *Gekkan-Mushi, Tokyo*, (272): 10–13. (In Japanese, with English title, description and summary.)

— 2001. A new *Platycerus* (Coleoptera, Lucanidae) discovered from Shennongjia of western Hubei, China. *Ibid.*, (362): 26–29. (In Japanese, with English title, description and summary.)

— 2002. Record of *Platycerus businskyi* (Coleoptera, Lucanidae) from the Dashennongjia Massif in western Hubei. *Elytra, Tokyo*, 30: 38.

— 2005. Records of *Platycerus* (Coleoptera, Lucanidae) from Henan Province, Central China. *Ibid.*, 33: 497–500.

— 2006 a. The male of *Platycerus businskyi* (Coleoptera, Lucanidae), with additional records of two other congeners from the Qinling Mountains of Central China. *Ibid.*, 34: 127–134.

— 2006 b. The genus *Platycerus* of China (Coleoptera, Lucanidae). *Gekkan-Mushi, Tokyo*, (426): 23–32. (In Japanese, with English title.)

— 2007. A new species of the genus *Platycerus* (Coleoptera, Lucanidae) from Mt. Emei Shan in central Sichuan, Southwest China. *Elytra, Tokyo*, 35: 319–323.

— & R. BARTOLOZZI, 2006. A new subspecies of *Platycerus hongwonpyoi* (Coleoptera, Lucanidae) from Nei Mongol Zizhiqu of North China. *Elytra, Tokyo*, 34: 135–137.

— & K.-R. CHOE, 1989. A new species and its new subspecies of the genus *Platycerus* from Korea (Coleoptera, Lucanidae). *Kor. J. Ent.*, 19: 19–24.

— & M. TANIKADO, 1998. Two new *Platycerus* (Coleoptera, Lucanidae) from the Dabashan Mountains in Central China. *Jpn. J. syst. Ent.*, Matsuyama, 4: 93–96.

— & WAN Xia, 2006. Occurrence of *Platycerus hongwonpyoi* (Coleoptera, Lucanidae) on Mt. Tianmu Shan of Zhejiang Province, East China. *Elytra, Tokyo*, 34: 293–298.

OKUDA, N., 1997. Descriptions of one new species and one new subspecies of the genus *Platycerus* (Coleoptera, Lucanidae) from Mt. Dabashan in northeastern Sichuan Province, Central China. *Gekkan-Mushi*, (313): 9–12. (In Japanese, with English title and description.)

TANIKADO, M., & M. TABANA, 1997. Notes on the lucanid genus *Platycerus* (Coleoptera) in mainland China—Descriptions of two new species of the genus from the Daliang Mountains in southern Sichuan Province—. *Gekkan-Mushi*, (316): 2–8. (In Japanese, with English title and description.)

— & — 1998. Notes on the lucanid genus *Platycerus* (Coleoptera) in mainland China (3)—Description of a new species from Li Xian in Sichuan Province and a review of the Chinese species of the genus—. *Ibid.*, (333): 13–17. (In Japanese, with English title and description.)